


In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

6 credits

30.0 h + 30.0 h

Q2

Teacher(s)	Quinet Muriel ;Rees Jean-François (coordinator) ;Schtickzelle Nicolas ;Van Dyck Hans ;Wesselingh Renate ;
Language :	French
Place of the course	Louvain-la-Neuve
Aims	<i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i>
Evaluation methods	<b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b> The evaluation will focus on the mastery of the theoretical concepts and the presentation of the results obtained during the experimental project in the lab or in the field.
Teaching methods	<b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b> Theoretical course, group work, fieldwork and laboratory experiments.
Content	A series of theoretical lessons will present the deductive and inductive methods, experimental and observational implemented in the work of the biologist. They will describe how to formulate a hypothesis, design an experiment, use an experimental model and / or make observations, encode and visualize the data, process the results using basic statistical tools, as well as infer a hypothesis or develop a theory on the basis of observations. Students will be trained in the basic functionality of Excel and R-Commander software.  Emphasis will be put on the development of critical thinking: assessing the quality of the sources of information, understanding the status of knowledge, especially its provisional nature, recognizing that every assertion must be tested and that any "evidence" must be confronted with critical evaluation, recognizing the limits of hypotheses and the character of knowledge, rigorously interpreting experimental facts, becoming aware of his representations and prejudices in his analysis, and being able to distance himself from his prejudices in his analysis.  Students will be asked to implement a strategy to investigate a biological issue in the lab and / or field. Distributed in teams, they will receive an affirmation for which they will have to carry out a bibliographical analysis, design and realize experiments from which they will collect the results in order to produce conclusions.
Inline resources	MOOC Penser critique on EdX <a href="https://www.edx.org/course/penser-critique">https://www.edx.org/course/penser-critique</a>
Faculty or entity in charge	BIOL

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Biology	<a href="#">BIOL1BA</a>	6		
Minor in Scientific Culture	<a href="#">LCUSC100I</a>	6		